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Vladimir Radev  
18 Chancellor Park Drive  
Mays Landing, NJ 08330-2049

EXAMINER
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CASS, JEAN PAUL

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* VLADIMIR RADEV

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Appeal 2016-000217  
Application 13/986,705  
Technology Center 3600

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Before MICHAEL L. HOELTER, LISA M. GUIJT, and  
PAUL J. KORNICZKY, *Administrative Patent Judges*.

KORNICZKY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant Vladimir Radev appeals under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1–12. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

## THE CLAIMED SUBJECT MATTER

The claims are directed to hybrid electric vehicles. Claim 1, reproduced below, is the only independent claim and illustrative of the claimed subject matter:

1. A vehicle comprising:

a first axle including two driving wheels and a second axle including two free-rolling wheels, wherein said two wheels of at least one of said two axles are also steerable for steering the vehicle;

an electric traction motor for selectively driving said two driving wheels of said first axle when said electric traction motor is energized, wherein the direction of rotation of the electric traction motor is reversible;

a first mechanical drive train connecting the electric traction motor with the driving wheels of the first axle for transmitting mechanical energy between the traction motor and the driving wheels of the first axle;

an electric power source for supplying the electric traction motor with electric energy, said electric power source including an electric battery for storing electric energy and selectively supplying the electric traction motor with electric energy and an electric generator for charging said electric battery and selectively supplying the electric traction motor with electric energy;

an internal-combustion engine for selectively driving said electric generator or the driving wheels of the first axle and the electric generator;

a second mechanical drive train connecting said internal-combustion engine with the driving wheels of the first axle for transmitting mechanical energy between the internal-combustion engine and the driving wheels of the first axle, said second mechanical drive train including a part of said first mechanical drive train;

a clutch included in the second mechanical drive train for selectively interrupting the transmission of mechanical energy between the internal-combustion engine and the driving wheels of the first axle;

a third mechanical drive train connecting the internal-combustion engine with the electric generator for transmitting mechanical energy between the internal-combustion engine and the electric generator, said third mechanical drive train including a part of the second mechanical drive train; and

a central electronic controller arranged and programmed to control and coordinate the operation of the electric traction motor, internal-combustion engine, electric generator, and said clutch, for operating the vehicle and charging the electric battery.

### REFERENCES

In rejecting the claims on appeal, the Examiner relied upon the following prior art:

Lennevi	US 6,336,063 B1	Jan. 1, 2002
Morrow	US 7,140,461 B2	Nov. 28, 2006
Doll	US 2009/0178869 A1	July 16, 2009
Ogata	US 8,360,185 B2	Jan. 29, 2013
Stefani	US 8,366,584 B2	Feb. 5, 2013
Kawabata/Taga <sup>1</sup>	EP 0 743 208 B1	May 20, 1996

### REJECTIONS

The Examiner made the following rejections:

1. Claims 1 and 2 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Morrow and Lennevi.

2. Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Morrow, Lennevi, and Stefani.

3. Claims 4–6 stand rejected under 35 U.S.C. § 103 as being unpatentable over Morrow and Lennevi, and, alternatively, Kawabata.

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<sup>1</sup> The first named inventor is Taga, but the Examiner and Appellant refer to the reference as “Kawabata.” To avoid confusion, the reference is called Kawabata.

4. Claims 7–11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lennevi, Morrow, and Stefani, and, alternatively, Ogata.

5. Claim 12 stands rejected under 35 U.S.C. § 103 as being unpatentable over Morrow, Lennevi, Stefani, and Doll.

Appellant seeks our review of the rejections.

### ANALYSIS

Under 35 U.S.C. § 132, “the examiner bears the initial burden, on review of prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Section 132 “is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection.” *In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011) (citations omitted).

In the Final Action, the Examiner’s findings that Morrow and/or Lennevi disclose the limitations in independent claim 1 are supported by terse citations to figures or passages in the references with little explanation as to how the references disclose the contested claim limitations. Final Act. 4–11. In the Appeal Brief, Appellant provides detailed and cogent explanations elucidating why the Examiner’s citations did not disclose the contested limitations, were irrelevant to the contested limitations, and/or were inaccurate. Appeal Br. 7–12. Instead of explaining why Appellant’s positions are incorrect, or why the Examiner’s findings are correct, the Examiner essentially repeats verbatim — and without explanation — the original findings and record citations in the Final Action. Ans. 5–16. The Examiner’s findings simply are so uninformative that it prevents one from

recognizing and seeking to counter the *specific* grounds for rejection. This Board and, more importantly, Appellant should not be required to sift through the prior art to locate support for the Examiner’s rejections and/or speculate as to teachings upon which the Examiner relies. *See SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1320 (Fed. Cir. 2006) (“Judges are not like pigs, hunting for truffles buried in briefs.”).

Two examples of the Examiner’s inadequate findings regarding the “drive train” and “electric power source” limitations in claim 1 are addressed below. First, the three pertinent “drive train” limitations (emphasis added) and the Examiner’s findings regarding each limitation in the Final Action and the Answer are presented in the table below:

<u><b>Claim 1 Limitations</b></u>	<u><b>Examiner’s Findings</b></u>
a <b>first mechanical drive train</b> connecting the <b>electric traction motor</b> with the <b>driving wheels</b> . . .	“see FIG. 13 and Col. 4, line 25 to line 58”  (Final Act. 7; Ans. 8)
a <b>second mechanical drive train</b> connecting said internal-combustion <b>engine</b> with the <b>driving wheels</b> . . . , said second mechanical drive train including a part of said first mechanical drive train	“See claim 39 and Col. 3, line 53 to Col. 4, line 15”  (Final Act. 8; Ans. 9)
a <b>third mechanical drive train</b> connecting the internal-combustion <b>engine</b> with the <b>electric generator</b> . . . , said third mechanical drive train including a part of the second mechanical drive train	“see claim 39 and claim 56”  (Final Act. 8; Ans. 9)

Appellant argues that the Examiner's findings regarding the three "drive train" limitations in claim 1 are incorrect. Appellant correctly argues that Figure 13 "shows not one but four different mechanical drive trains 1242, 1282, 1283, 1284, through which mechanical energy is selectively transmitted from the motor/generators 1238, 1250, 1251 to the wheels of the three drive axles 122, 124, 126." Appeal Br. 8. In addition to Figure 13, the Examiner's citation to columns 3 and 4 of Morrow discloses additional wheel drives 122, 124, 126, drive train 142, and motor/generator 138. Morrow 3:53–4:48. The citation to claims 39 and 54 also discloses a "first drive train," "second drive train," and "first motor/generator." Morrow 22:58–23:8, 24:41–25:8. Neither the Final Action nor the Answer identify the *specific* structure in Morrow which, or how such structure, corresponds to the three "drive train" limitations in claim 1, including:

- (1) which of the many drive trains, motors/generators, and wheels disclosed in Morrow corresponds to the first, second, and third drive trains, motor, generator, and wheels recited in claim 1;
- (2) a first drive train which connects the "motor with the driving wheels";
- (3) a second drive train which connects the "engine with the driving wheels"; and
- (4) a third drive train which connects the "engine with the electric generator."

The Examiner's terse citations to Morrow, without explanation, do not provide sufficient information to permit one to determine whether Morrow meaningfully discloses the "drive train" limitations in claim 1.

Second, the “electric power source” limitation in claim 1 recites “an electric power source for supplying the electric traction motor with electric energy, said electric power source including an *electric battery* for storing electric energy and selectively supplying the electric traction motor with electric energy and an *electric generator* for charging said electric battery and selectively supplying the electric traction motor with electric energy.” Appeal Br. 18–19 (Claims App.) (emphasis added). The totality of the Examiner’s finding that Morrow discloses this limitation is: (1) “see FIG. 3 and Col. 6, line 55 to Co[1]. 7, line 5””; and (2) “see FIG. 13 and Col. 4, line 25 to line 58.” Final Act. 8; see also Ans. 8–9. We note that an unlabeled figure from Morrow — without any explanation or information — is presented. Final Act. 7 (compare the unnumbered and unlabeled figure with Figure 11 in Morrow).

In response to the Examiner’s terse findings, Appellant correctly argues that: (1) “FIG. 3 does not show any electric battery or electric generator;” (2) Figure 13 does not show “an electric battery;” and (3) the column 4 and 6 citations to “electric motor/generators” do not disclose the individual “traction motor” and “generator” recited in claim 1. Appeal Br. 8. Depending on Morrow’s operation mode, Morrow’s electric motor/generator may operate as a motor or a generator, but not both at the same time. *See, e.g.,* Morrow 4:25–43, 6:55–7:5. Thus, when it acts a generator selectively supplying electricity to the Morrow system, it cannot also be a traction motor receiving electricity from itself.

As indicated *supra* and in response to Appellant’s detailed and cogent arguments, the Examiner’s Answer merely repeats the same terse findings in the Final Action. *Compare* Ans. 9, 13 with Final Act. 8. The Examiner’s

citation to Figures 3 and 13 and columns 4 and 6 do not disclose the “electric power source” limitation.

Although the Final Action and Answer provide no explanation or information about the unlabeled Figure 11, we note that the embodiment in Figure 11 of Morrow (and related portions of Morrow’s Specification) disclose (1) storage/battery 1017 which stores electricity and supplies electricity to the Morrow system (e.g. motors), and (2) generator 1014 which charges storage/battery 1017 and delivers electricity to the system (e.g., motors). The Examiner’s uninformative findings, however, do not inform us whether or how the Figure 11-related embodiments, either singly or with other embodiments in Morrow, disclose the other limitations of claim 1.

For at least the reasons discussed above, we cannot sustain the rejection of independent claim 1, and claims 2–12 which depend from claim 1. Nothing in our decision should be viewed as precluding the Examiner from reopening prosecution and providing an explanation to Applicant as to how Morrow and other art of record may disclose the limitations of claim 1. We note, for example, that other embodiments in Morrow (e.g., Figures 11–12 and related disclosure) or the admitted prior art in Appellant’s Specification (e.g., Spec. ¶¶ 8–23, 29–33) may disclose some of the limitations in claim 1.

To facilitate any future prosecution, we address two of Appellant’s other arguments. First, Appellant argues that the Examiner’s findings regarding the drive axles, traction motor, first drive train, and clutch are

improper.<sup>2</sup> Specifically, Appellant alleges that the claimed invention describes “a first axle 11 including two driving wheels 12, 13 and a second axle 14 including two free-rolling wheels 15, 16” whereas Morrow “presents a vehicle with three drive axles 122, 124 126.” Appeal Br. 7. Appellant also argues that the claimed invention describes “an electric traction motor 17 for selectively driving the two driving wheels 12, 13” whereas Morrow “shows not one but three motor/generators 1238, 1250, 1251.” *Id.* Appellant argues that “a first mechanical drive train connect[s] the electric traction motor 17 with the driving wheels 12, 13” whereas Morrow “shows not one but four different mechanical drive trains 1242, 1282, 1283, 1284.” *Id.* at 8. Finally, Appellant argues that the claimed invention describes “a clutch 32 included in the second mechanical drive train for selectively interrupting the transmission of mechanical energy between the internal-combustion engine 27 and the driving wheels 12, 13” (*id.* at 9) whereas Morrow discloses “two clutches 38 and 42, which alternatively connect the engine 22 with the output shaft 28 through two drive trains 36 and 40 respectively. Each of these two drive trains provides different speed reduction ratio.” *Id.*

Claim 1’s use of the term “comprising” means the device may contain elements in addition to those explicitly recited and still fall within the scope of claim 1. *In re Skvorecz*, 580 F.3d 1262, 1267–68 (Fed. Cir. 2009) (“‘comprising’ is well understood to mean ‘including but not limited to.’”) (citations omitted). If Appellant’s argument is that claim 1 requires “exactly and only” two drive axles, “exactly and only” one traction motor, “exactly

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<sup>2</sup> We note that the Examiner’s findings do not inform one about which of Morrow’s many axles, traction motors, drive trains, and clutches in Morrow’s many embodiments correspond to the claim limitations in claim 1.

and only” one drive train, and “exactly and only” one clutch, then Appellant’s argument is not commensurate with the scope of the claims. Claim 1 is not limited to the specific embodiments described in the Specification, and limitations not appearing in the claims cannot be relied upon for patentability. *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982) (stating limitations not appearing in the claims cannot be relied upon for patentability). Appellant does not show error by the Examiner.

Second, Appellant argues that the Examiner’s finding regarding the “second mechanical drive train” is improper because Morrow’s “distribution system is a subject matter foreign to the claimed invention; the Appellant claims a hybrid electric vehicle . . . needing no distribution system” (Appeal Br. 9), and Morrow’s “mechanical power transmission [using] planetary gear-power-splitting mechanisms is completely different from the arrangement in Claim 1 of the Appellant’s invention, which does not include any planetary gear power-splitting mechanisms” (Appeal Br. 10). Claim 1, however, is not limited to the specific embodiments described in the Specification, and limitations not appearing in the claims cannot be relied upon for patentability. *See In re Self*, 671 F.2d at 1348. Appellant does not show error by the Examiner.

#### DECISION

For the above reasons, the Examiner’s rejections of claims 1–12 are REVERSED.

REVERSED